



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,595	01/30/2001	Peter Hossel	51186	8957

26474 7590 04/19/2006

NOVAK DRUCE DELUCA & QUIGG, LLP  
1300 EYE STREET NW  
SUITE 400 EAST TOWER  
WASHINGTON, DC 20005

EXAMINER

LAMM, MARINA

ART UNIT PAPER NUMBER

.1616

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**MAILED**

**APR 19 2006**

**GROUP 1600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/771,595  
Filing Date: January 30, 2001  
Appellant(s): HOSSEL ET AL.

---

Jason D. Voight  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 11/7/05 appealing from the Office action mailed 10/15/04.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

<b>5,827,508</b>	<b>TANNER et al.</b>	<b>10-1998</b>
<b>6,165,449</b>	<b>GEORGE et al.</b>	<b>12-2000</b>
<b>EP 0 893 117</b>	<b>HÖSSEL et al.</b>	<b>1-1999</b>

**(incorrectly referred to  
as "DIEING et al."  
throughout the  
prosecution)**

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-4 and 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 893 117 in view of Tanner et al. (US 5,827,508) and George et al. (US 6,165,449).

EP 0 893 117 teaches cationic crosslinked polymers for use in cosmetic compositions, in particular in hair care compositions such as hair lotions, rinses, emulsions, sprays and shampoos, said polymers comprising 1-99.99% of a cationic or quaternized monomer such as 3-methyl-1-vinylimidazolium methyl sulfate and 0-98.99% of a water-soluble monomer such as N-vinylpyrrolidone. See Translation at pp. 4-6. N,N'-divinylethylenurea can be used as a crosslinking agent. See Translation at p. 5; p. 7; Example 3. The polymers of EP 0 893 117 are obtained by the same method of free-radical initiated solution polymerization as recited in the instant claims. See Translation at p. 5. EP 0 893 117 teaches that along with the polymers and solvents, the cosmetic

Art Unit: 1616

hair preparations can also contain conventional cosmetic ingredients. See Translation at p. 6. EP 0 893 117 does not explicitly teach the UV filters of the instant claims.

However, Tanner et al. teach that it is conventional to employ sunscreen agents in a variety of personal care products. See col. 1, lines 51-53. Tanner et al. teach using a surface treated micronized zinc oxide in combination with a dibenzoylmethane sunscreen compound in cosmetic compositions for providing excellent photostability, chemical stability and physical stability of the cosmetic compositions as well as good UVA protection. See col. 2, lines 18-22; col. 7, lines 17-34; col. 8, lines 49-54. Further, George et al. teach that it is desirable to incorporate sunscreen agents or sunfilters in a variety of cosmetic products, including hair care products such as shampoos and mousses for at least partially protecting human skin and hair from UV radiation. See col. 1, lines 37-45. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hair care compositions of EP 0 893 117 such that to employ UV filters of Tanner et al. One having ordinary skill in the art would have been motivated to do this to obtain compositions having improved photostability, chemical stability and physical stability as suggested by Tanner et al. One having ordinary skill in the art would have been further motivated to do this to obtain compositions that would protect hair from UV radiation as suggested by both Tanner et al. and George et al.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

### **(10) Response to Argument**

The Applicant argues that the teachings of George et al. are "by far too generic to reasonably suggest that a person of ordinary skill in the art considered all sun screen agents as equivalent independent of the nature of the personal care product." See p. 5 of the Brief. In response, George et al. was cited to show that it is well known in the art of cosmetic compositions to incorporate sunscreen agents "into a variety of products for everyday use", including **shampoos and mousses**, for at least partial protection of "human skin **and hair** from UV radiation". See col. 1, lines 37-47. (emphasis added).

Further, the Applicant argues that Tanner et al. "also specifically addresses compositions which are adapted for the protection of human skin from the harmful effects of UV radiation." See p. 5 of the Brief. "The secondary references fail, however, to suggest or imply that inorganic sunscreen agents would reasonably be considered by a person of ordinary skill in the art as being useful for the protection of human hair." See p. 6 of the Brief. In response, Tanner et al. teach that their sunscreen compositions may be used in aerosol sprays and mousses and mentions aerosol hair sprays. See col. 9, lines 13-38. Therefore, the carriers of Tanner et al. are not limited to skin formulations, but also include sprays and mousses.

Furthermore, the Applicant argues: "...the teaching of Dieing et al. [EP 0 893 117], when taken alone, provides nothing which would motivate a reasonable person of ordinary skill in the art to combine the hair conditioning polymer with an inorganic sunscreen agent." See p. 6 of the Brief. The Examiner agrees that, when taken alone,

Art Unit: 1616

the teaching of EP 0 893 117 does not suggest using inorganic sunscreen, or any sunscreen for that matter, in their hair conditioning compositions. However, there is no requirement that a motivation to make the modification be expressly articulated in the reference. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA 1969). In this case, the knowledge in the art of cosmetic compositions, as stated in the George et al. reference, provides the necessary suggestion and motivation to use sunscreens in "a variety of products for everyday use", including shampoos and mousses, for at least partial protection of "human skin and hair from UV radiation". The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference and not is it that the claimed invention must be expressly suggested in any one or all of the references; but rather the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). See MPEP 2145. Once a prima facie case of obviousness has been made the burden of going further is shifted to applicant. *In re Keller*, 642 F.2d 4B, 208 USPQ 871, 882 (CCPA 1981). This Applicant argues the references individually and not their combination. One cannot show non-obviousness by attacking references individually where the rejections are based on a combination of references. *In re Young*, 403 F.2d

Art Unit: 1616

759, 150 USPQ 725 (CCPA 1968). The strongest rationale for combining references is a recognition, expressly or implicitly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. See *In re Sernaker* 17 USPQ 1, 5-6 (Fed. Cir. 1983) and MPEP 2144. In this case, the art clearly recognizes beneficial results of incorporating sunscreen agents into hair care compositions as stated by George et al. Further, Tanner et al. teach that personal care compositions containing surface treated zinc oxide in combination with a dibenzoylmethane compound "demonstrate unexpected photostability, chemical stability, and physical stability, as well as providing good UVA protection." See col. 2, lines 18-22. Thus, clear advantages and expected beneficial results of the combination are apparent in this case.

Further, the Applicant argues: "Since the inorganic sunscreen agents are white or yellowish-white powders a person of ordinary skill in the art would reasonable expect that a film of the pigments on the hair would give the hair an undesirable dull, ie. unhealthy appearance. It is respectfully noted in this context that a film of a white or yellowish-white powder might be acceptable from an aesthetic point of view if the film is applied to the skin. That does, however, not suggest or imply that the film of a white or yellowish-white powder is still aesthetically acceptable if it is applied to hair." See pp. 6-7 of the Brief. In response, Tanner et al. teach that their surface treated zinc oxide sunscreens avoid the shortcomings of the prior art zinc oxide sunscreens such as



Art Unit: 1616

tendency to agglomerate and to cause whitening. See col. 2, lines 7-15. Therefore, it can be reasonably concluded that the surface treated zinc oxide sunscreens of Tanner et al. will not cause an aesthetically unacceptable whitening effect when used in either skin or hair care cosmetic compositions.

Furthermore, the Applicant argues: "In the case where the hair conditioning compositions is adapted to remain on the hair so that any wash-out of the inorganic sunscreen agent is of no concern, the film of pigment powder **could** after the hair is dried, detach from the hair **if** the adherence properties of the inorganic sunscreen agent are insufficient. **Under those circumstances**, the protection of the hair which is sought by employing a sunscreen agent would no longer be provided. Either one of those situations, can clearly not be considered as a desirable result." See p. 6 of the Brief. (emphasis added). In response, the Applicant's assertions are not supported by the facts on the record. The Applicant has provided NO evidence that zinc oxide powder will detach from the hair. On the contrary, one skilled in the art would have reasonably expected zinc oxide of Tanner et al. to remain on the hair because zinc oxide of Tanner et al. (1) is in the form of very small particles (0.1-100 microns) and (2) is surface treated with materials which improve its dispersability in the composition. Further, Tanner et al. explicitly teach that their compositions are physically stable, i.e. resist phase separation. See col. 3. lines 49-57.

In response to the Applicant's argument that there is no suggestion to combine the references (see pp. 7-8 of the Brief), the Examiner recognizes that obviousness can

Art Unit: 1616

only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, EP 0 893 117 teaches the claimed polymer in hair care compositions but fails to teach the UV filters of the instant claims. However, George et al. teach that it is desirable to incorporate sunscreen agents or sunfilters in a variety of cosmetic products, including hair care products such as shampoos and mousses for at least partially protecting human skin and hair from UV radiation. Tanner et al. teach using a surface treated micronized zinc oxide in combination with a dibenzoylmethane sunscreen compound in cosmetic compositions for providing excellent photostability, chemical stability and physical stability of the cosmetic compositions as well as good UVA protection. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hair care compositions of EP 0 893 117 such that to employ UV filters of Tanner et al. One having ordinary skill in the art would have been motivated to do this to obtain compositions having improved photostability, chemical stability and physical stability as suggested by Tanner et al. One having ordinary skill in the art would have been further motivated to do this to obtain compositions that would protect hair from UV radiation as suggested by both Tanner et al. and George et al.

Art Unit: 1616

The Applicant argues: "There is also no reasonable expectation that the presence of inorganic UV protecting pigments would be useful in the context of hair conditioning preparations, or that a hair conditioning agent could serve any purpose in the context of a skin treatment composition." See p. 9 of the Brief. In response, it is noted that the teachings of EP 0 893 117 are not limited to hair conditioning formulations and include hair sprays, mousses, hair rinses, hair emulsions, hair lotions, etc. See p. 14 of the Translation. Tanner et al. teach that their sunscreen compositions may be used in sprays and mousses. Therefore, contrary to the Applicant's assertion, there is a reasonable expectation that sunscreens of Tanner et al. would be useful and beneficial in the hair care compositions of EP 0 893 117.

**(11) Related Proceeding(s) Appendix**


No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

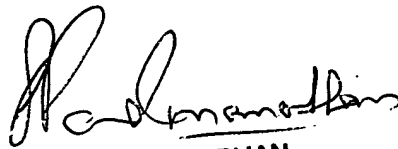
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Marina Lamm  
4/14/06

Conferees:

  
CHRISTOPHER S. F. LOW  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600  
*Conferees*

  
SREENI PADMANABHAN  
SUPERVISORY PATENT EXAMINER